Claim 10 (amended) The method of claim 3 wherein the Padina pavonica extract content is 20 to 80,000 Unites of activity (UA) per kg of active principle on a support, per kg of final topical composition. antecedent

Claim 11 (amended) The method of claim 12 wherein a culture media is used to increase the maturation of Keratinocytes.

REMARKS

The amendment is presented to insert reference to the PCT application and to conform the claims to the American practice.

Respectfully submitted,
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CAM:ds
Enclosures

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MARKED UP VERSION OF PAGE 1 OF SPECIFICATION

# USE OF DICTYOTAL EXTRACTS IN THE PRODUCTION OF A TOPICAL COMPOSITION

Insert

-- This application is a 371 of PCT/FR01/00067 filed January 10, 2001.--

The present invention relates to the field of cosmetology and more especially to a new agent and new formulations intended for cosmetic purposes.

More especially it has as its aim new topical compositions containing an extract of algae, which have the property of activating the maturation of Keratinocytes.

Its specific aim is the use of a preparation based on extracts of an alga from the Dictyotales family with a view to producing a topical composition, intended for cosmetic purposes, bringing about the maturation of Keratinocytes with amplification of the synthesis of the cytokeratins, particularly cytokeratins CK1 and CK10, and the increase of desmosomial proteins to contribute to the consolidation of the stratified structure of the epidermis.

This extract of alga neither increases proliferation nor entails excessive ageing of the cells, and does not act on the cellular metabolism of the cells of human skin.

The epidermis which represents the surface section of the skin is formed from a succession of several layers of keratinocytes that are differentiated to a greater or lesser extent.

Thus, at the level of the basal layer, keratinocytes are found, which are small in size but have a great capacity for proliferation. Above this layer, there are several suprabasal layers made up of keratinocytes that are matured or developed, then differentiated as a function of their selective migration from the basal layer.

This stratified structure of the suprabasal layers of the epidermis can be modulated by several factors and particularly by soluble or ionic calcium – as opposed to fixed calcium: in the presence of calcium in a sufficient quantity, a stimulation of the synthesis of the cytoskeleton is observed and particularly of the cytokeratins, and of

Marked up version of claims

## CLAIMS

1. Use of a preparation based on an extract of algae of the Dictyotales family, with a view of producing a topical composition intended for cosmetic purposes, with a view to the maturation of Keratinocytes, with amplification of the synthesis of the cytokins and increase of the desmosomial proteins.

2. ~~Use of a preparation on a basis of extract of algae of the Dictyotales family, according to~~ The method of claim 12 wherein ~~characterized in that~~ the active ~~principle~~ extract is a product prepared after extraction from the algae and purification by HPLC on grafted silica in $C_{18}$ of a raw extract, then elution by a mixture of methanol/water, to isolate an active fraction possessing a period of retention of between 9 and 12 minutes.

3. ~~Use of a preparation according to~~ The method of claim 12 wherein ~~1, in which~~ the active principle results from an ethanol or acetone extract of the alga Padina pavonica.

4. ~~Use of a preparation according to~~ The method of claim 13 ~~1 or claim 2, in which~~ the extract of Padona pavonica is evaporated until dry and then dispersed in a liquid or solid inert support, and diluted in a liquid or solid inert support.

5. ~~Use of a preparation according to claim 1 or claim 2, in which~~ The method of claim 4 wherein the extract of Padina pavonica is incorporated into a support or vehicle appropriate ~~to the achievement of~~ for topical preparations in an oily or aqueous phase, or dry, ~~such as creams, suspensions, emulsions, gels, ointments or powder.~~

6. ~~Use of a composition according to claim 1 or claim 2, in which~~ The method of claim 3 wherein the extract of Padina pavonica is incorporated into a solution of polyethylene glycol containing a dispersant or a surfactant, and in which a silicone oil is added to the solution to produce a fluid emulsion.

7. ~~Use of a preparation with a base of extract of algae of the Dictyotales family according to~~ The method of claim 12 wherein ~~1, in which~~ the active principle content ~~ranges from~~ is 0.1 to 200 g per kg of ~~preparation~~ the composition.

8. ~~Use of a preparation based on an extract of algae of the Dictyotales family according to~~ The method of claim 12 ~~1 or claim 2, in which~~ wherein the active principle content ~~ranges from~~ is 4 to 150 g per kg of ~~preparation~~ the composition.

9. The method of ~~Use of a preparation based on an extract of algae of the Dictyotales family according to~~ claim 12 ~~1 or claim 2~~, wherein ~~in which~~ the concentration of extract of algae is ~~dosed in activity~~ is up to 200,000 Units (UA) per liter.

10. The method of ~~Use of a preparation based on an extract of algae of the Dictyotales family according to~~ claim 13 ~~1 or claim 2, in which~~ wherein the Padina pavonica extract content ~~ranges from~~ is 20 to 80,000 Units of activity (UA) per kg of active principle on a support, per kg of final topical ~~preparation~~ composition.

11. The method of ~~Use of a preparation based on an extract of algae of the Dictyotales family according to~~ claim 12 ~~1 or claim 2, in~~ wherein a culture media is used to increase the maturation of Keratinocytes.